

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

20. (Currently Amended): A rheopectic abrasive visco-elastic medium composition for abrasive working of a work piece comprising: A. a visco-elastic poly(boro-siloxane) polymer carrier having a static viscosity of from about $\eta = 5 \times 10^3$ Centipoise to about $\eta = 5 \times 10^5$ Centipoise; B. a particulate abrasive; C. an optional inert filler in an amount of up to about 25% by weight of said medium; an optional plasticizing lubricant for said visco-elastic polymer in an amount of up to about 25% by weight of said medium; E. said medium having a static viscosity of from about $\eta = 2 \times 10^4$ Centipoise to about $\eta = 8 \times 10^6$ Centipoise, said medium containing a total volume of said particulate abrasive and of said inert filler is less than a the critical particulate solids volume concentration of said medium; and F. thesaid resulting visco-elastic abrasive medium having from 50% to about 99% of the deflection by elastic deformation, and 1 to 50% of the deflection of the medium by fluid or plastic flow, when subjected to applied strain rates greater than about 2.5 sec^{-1} .

21. (Currently Amended): The medium composition of Claim 20 wherein said ~~visco-elastic-particulate abrasive comprises~~ is a material selected from the group consisting of alumina, silica, garnet, silicon carbide, diamond, tungsten carbide and mixtures thereof.

22. (Currently Amended): The medium composition of claim 20 wherein said particulate abrasive further comprises particles which range from about 1 to about 2000 micrometers in their greatest dimension.